



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,696	09/29/2000	David L. Rechberger	39808/SAH/C715	1549

7590 05/22/2002

CHRISTIE, PARKER & HALE, LLP  
P O Box 7068  
Pasadena, CA 91109-7068

EXAMINER

LAVARIAS, ARNEL C

ART UNIT PAPER NUMBER

2872

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/676,696

Applicant(s)

RECHBERGER ET AL.

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-56 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I: an optical device package with a rigid, flex-rigid, or flex circuit board. Claims 1-4.

Species II: an optical device package with a ceramic substrate. Claims 1 and 5.

Species III: an optical device package with a silicon substrate. Claims 1 and 6.

Species IV: an optical device package with a substrate further comprising castellations for electrical connections to a motherboard. Claims 1 and 7.

Species V: an optical device package with a substrate further comprising coplanar waveguide structures. Claims 1, 8, and 10.

Species VI: an optical device package with a substrate further comprising microstrip waveguide structures. Claims 1, 8, and 11.

Species VII: an optical device package with a substrate further comprising stripline waveguide structures. Claims 1, 8, and 12.

Species VIII: an optical device package with a substrate further comprising transmission lines. Claims 1 and 9.

Species IX: an optical device package wherein the optoelectronic device is directly mounted to the substrate. Claims 1 and 13.

Art Unit: 2872

Species X: an optical device package wherein the optoelectronic device is mounted to the substrate via a standoff. Claims 1 and 14.

Species XI: an optical device package wherein the optoelectronic device is mounted to the substrate via standard electrical devices. Claims 1, 15-16.

Species XII: an optical device package wherein the optoelectronic device comprises an optical transmitter/receiver/transceiver. Claims 1, 17-25.

Species XIII: an optical device package wherein the substrate comprises a signal and case ground plane separated by a dielectric. Claims 1 and 26.

Species XIV: an optical device package wherein the optoelectronic device is wire bonded to the substrate. Claims 1 and 27.

Species XV: an optical device package wherein the optoelectronic device is flip chip mounted to the substrate. Claims 1 and 28.

Species XVI: an optical device package wherein the optoelectronic device is BGA mounted to the substrate. Claims 1 and 29.

Species XVII: an optical device package wherein the enclosure is a TO metal cap that maintains an air gap around the optoelectronic device. Claims 1, 30-31.

Species XVIII: an optical device package wherein the enclosure is a TO metal cap resistively welded to the substrate. Claims 1, 30, and 32.

Species XIX: an optical device package wherein the enclosure is a TO metal cap epoxy bonded to the substrate. Claims 1, 30, and 33.

Species XX: an optical device package wherein the enclosure is a TO metal cap laser welded to the substrate. Claims 1, 30, and 34.

Art Unit: 2872

Species XXI: an optical device package wherein the enclosure is a plastic encapsulation that maintains an air gap around the optoelectronic device. Claims 1, 35-36, 47.

Species XXII: an optical device package wherein the enclosure is a plastic encapsulation with an optical lensing element. Claims 1, 35, 37, and 47.

Species XXIII: an optical device package wherein the fiber coupling assembly further comprises a focusing lens. Claims 1, 38-39, and 44.

Species XXIV: an optical device package with molded guide members and vias in the substrate. Claims 1, 38, and 40.

Species XXV: an optical device package wherein the barrel of the fiber coupling assembly is non-cylindrical in cross-sectional shape. Claims 1, 38, and 41.

Species XXVI: an optical device package wherein the fiber coupling assembly further consists of a mirror. Claims 1, 38, 42-43.

Species XXVII: an optoelectronic device coupled to a substrate wherein the substrate is a flex-rigid circuit board. Claims 45-46, and 49.

Species XXVIII: an optoelectronic device coupled to a substrate wherein the optoelectronic device is sealed with plastic encapsulant. Claims 45 and 48.

Species XXIX: an optical device package with an optoelectronic device coupled to a substrate wherein the optoelectronic device comprises a mounting surface operably coupled to the daughter board. Claims 49-50.

Species XXX: an optical device package with an optoelectronic device coupled to a substrate wherein the optical device comprises an optical transmitter/receiver/transceiver. Claims 49, 51-55.

Art Unit: 2872

Species XXXI: an optical device package with an optoelectronic device coupled to a substrate wherein the optical device package further consists of a fiber coupling assembly and alignment guide structure. Claims 49 and 56.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the

Art Unit: 2872

evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on 703-308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Art Unit: 2872

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

Arnel C. Lavarias  
May 17, 2002

A handwritten signature in black ink, appearing to read 'C. Spyrou', with a stylized, wavy line extending from the end.

**Cassandra Spyrou**  
**Supervisory Patent Examiner**  
**Technology Center 2800**